



Ricardo
Energy & Environment

Bridge Road Food Factory: EP Variation

Non-Technical Summary

Report for Princes Limited
ED11556111

Customer:**Princes Limited****Customer reference:**

Canning excellence

Confidentiality, copyright & reproduction:

This report is the Copyright of Princes Limited and has been prepared by Ricardo Energy & Environment, a trading name of Ricardo-AEA Ltd under contract PO 7068012 dated 05 November 2019. The contents of this report may not be reproduced, in whole or in part, nor passed to any organisation or person without the specific prior written permission of Princes Ltd. Ricardo Energy & Environment accepts no liability whatsoever to any third party for any loss or damage arising from any interpretation or use of the information contained in this report, or reliance on any views expressed therein, other than the liability that is agreed in the said contract.

Contact:

Sarah Lovell
Ricardo Energy & Environment
Gemini Building, Harwell, Didcot, OX11 0QR,
United Kingdom

t: +44 (0) 1235 75 3274**e:** sarah.lovell@ricardo.com

Ricardo is certificated to ISO9001, ISO14001
and OHSAS18001

Author:

Lovell, Sarah

Approved By:

Gibson, Nigel

Date:

18 March 2020

Ricardo Energy & Environment reference:

Ref: ED11556111- Issue Number 1

Table of contents

1	Introduction	1
1.1	Site Location and Environmental Setting	1
1.2	Existing Installation.....	2
1.3	Summary of proposed changes to the regulated facility	3
1.3.1	New Raw Materials Storage Area and Ingredients Processing Facility	3
1.3.2	Changes to Food Processing	3
1.3.3	Increased Production Capacity	4
1.3.4	Replacement of Anaerobic Digestion (AD) plant	5
1.3.5	Removal of redundant emission points and boiler equipment	5
1.4	Variations required to permit conditions	5
1.4.1	Schedule 1, Table S1.1 – Permitted activities	6
1.4.2	Schedule 1, Table S1.2 – Operating Techniques	7
1.4.3	Schedule 3, Table S3.1 – Point Source Emissions to Air:	7
1.4.4	Schedule 7 – Site Plan	7
2	Assessments	8
2.1	Environmental Risk Assessment.....	8
2.2	point source emissions.....	8
2.2.1	land.....	8
2.2.2	air.....	8
2.2.3	surface water.....	9
2.2.4	groundwater	9
2.3	Site Condition Report	9
3	Key Technical Standards and Control Measures	11

Appendices

Appendix NTS1 EA Pre-Application Enhanced Service Letter

1 Introduction

Ricardo Energy & Environment (Ricardo) has been retained by Princes Ltd (Princes) to prepare an application to vary existing Environmental Permit reference EPR/RP3534FP/V003, which authorises the operation of a Part A Installation (falling within the scope of the Industrial Emissions Directive (“IED”)) under the Environmental Permitting (England and Wales) Regulations 2016, at the Bridge Road Food Factory, Long Sutton, Lincolnshire PE12 9EQ.

In accordance with the Environment Agency (EA) guidance notes in relation to the Part C2 application form, this Non-Technical Summary (NTS) is a summary of the application using non-technical language and includes a summary of the regulated facility and the key technical standards and control measures arising from the risk assessment. This document has been prepared in conjunction with Princes.

To support this permit variation application, the following documentation is submitted in addition to this NTS:

- EP application Forms (Parts A, C2, C3 and F1) and supporting documentation;
- Operating Techniques (including EMS Summary) and BAT Assessment;
- Environmental Risk Assessment (ERA);
- Site Condition Baseline Report (SCR);
- Site plans and Process Flow Diagram; and
- Odour Management Plan (OMP).

1.1 Site Location and Environmental Setting

The installation is located approximately 1.9 km east south east of Long Sutton town centre and 19km west of Kings Lynn, on Bridge Road (Grid Reference TF 45026 22204). The installation forms part of a wider site owned and operated by Princes, which is approximately 13.2ha in size. The existing installation currently covers an area of approximately 8 hectares (ha). The areas of the site outside of the current installation boundary are used for staff car parking, lorry parking and pallet storage and includes some areas of open scrub and grassland.

The site is bounded by Bridge Road to the north, Hundred Lane to the west, a fence line with agricultural land beyond to the east and a further fence line by a dismantled railway track to the south. The site is surrounded mainly by open countryside and agricultural (arable) land.

The nearest neighbour is a residential property, located adjacent to the site on its eastern boundary, at 144 Bridge Road. There are also a number of residential properties directly opposite the northern boundary of the site on the opposite side of Bridge Road, at 1-8 Bridge Road and a small cluster of properties on the southern portion of Hospital Drove to the east of the site. There is a larger number of residential properties located in a ribbon development along the portion of Hospital Drove north of the junction with Bridge Road. L C Packaging is located on Bridge Road to the west of the installation site.

The Wash Ramsar Site, Special Protection Area (SPA), Special Area for Conservation (SAC) and Site of Special Scientific Interest (SSSI) is located approximately 6.3km from the installation.

There are various small surface water features both directly adjacent to and in close proximity to the site. These take the forms of drainage dykes that drain the surrounding low lying flat arable lands. In particular there are dykes located to the east and west of the site. The site lies within a Flood Zone 3. However the Flood Risk Assessment, dated August 2018, in support of the planning application for the new Raw Material Handling and Kitchen Facility, found that there was no record of historic flooding at the site.

The Groundwater Vulnerability map for the area (Sheet 25, West Norfolk) shows the site to be located on a non-aquifer. Groundwater within the superficial deposits beneath the site is considered to be in

hydraulic continuity with the Ampthill Clay. The groundwater within the superficial deposits is anticipated to be in hydraulic continuity with the adjacent surface water drainage dyke.

Phase 2 Site investigation work carried out by Solmek Ltd in May 2018 (see section 5 of the variation application) identified the local geology as follows:

- Made ground was proven to max. of 1.10mbgl generally in and adjacent to spoil piles.
- Made ground beneath hardstanding in boreholes generally between 0.20m and 0.40mbgl and consisted of sub angular to sub rounded sand and gravel dolomite or flint fill.
- TPs 16-18 encountered orange and grey stone fill with angular brick and concrete cobbles and boulders.
- Natural deposits were generally brown sandy silty clay overlain locally by brown clayey sand. Perched groundwater in TP08 within made ground.

1.2 Existing Installation

The existing installation currently comprises a factory for the receipt and preparation of foods canned for human consumption and a biological treatment plant for the treatment of process effluent. The Long Sutton installation is Princes' largest food production site in the UK.

The current product range comprises mainly cans of beans in tomato sauce, pulses and peas, fruit, pasta products, vegetables, ready meal products, sauces, rice pudding and canned meat products. Some processing operations (for example peas) are seasonal to reflect availability of feedstock.

Process effluent from the food processing activities is treated at the onsite effluent treatment plant (ETP) which consists of a collection pit, screen, balancing tank, primary clarifiers, conditioning tank, anaerobic digester (AD) with flare stack, aeration tanks, secondary clarifiers and odour filters, prior to discharge to the River Nene at emission point W4 at a maximum permitted rate of 4000m³/day. Table S3.1 of the existing permit, Point Source Emissions to Air, also includes emissions from the boiler stack associated with the AD Plant and a number of other boiler stacks .

In summary, the prescribed process can be broken down into the following activities:

- Materials delivery, handling, unpacking and storage (including refrigeration);
- Raw material preparation (including cleaning/fruit and vegetable washing and de-stoning, soaking, rehydration, sorting, screening, grading, peeling, blanching and steam sterilisation);
- Size reduction (mincing and dicing);
- Canning;
- Cooking/sterilisation using either continuous rotary sterilisers or hydrostat towers, depending on the product;
- Cleaning and sanitation;
- Packaging;
- Management of waste;
- Treatment and discharge of process effluent; and
- Burning of the resulting biogas from the effluent treatment plant in an onsite boiler, or flare.

Table S1.1 of Schedule 1 of the existing permit (V003 issued 02/12/2013) currently authorises the following activities Schedule 1 and Directly Associated Activities (DAA):

Current Permit Table S1.1 Permitted Activities

Activity Listed in Schedule 1 of the EP Regulations	Description of the specified activity and WFD annex I and II operations	Limits of specified activity and waste types
---	---	--

Section 6.8 A(1)(d)(ii)	Treating and processing materials intended for the production of food products from vegetable raw materials at a plant with a finished product production capacity of more than 300 tonnes/day (average value on a quarterly basis)	Receipt of raw materials to despatch of finished product, incorporating the activities below
Section 5.4 A(1)(a)(i)	disposal of non-hazardous waste in a facility with a capacity exceeding 50 tonnes per day biological treatment (D8).	Collection, primary treatment and secondary treatment of process effluent from the Installation prior to discharge to controlled waters.
Directly Associated Activity	Treating and processing materials intended for the production of food products from animal raw materials.	Receipt of raw materials to despatch of finished product
Directly Associated Activity	Operation of site systems for the supply of utilities and services such as electricity, water, steam, process cooling, compressed air and refrigeration.	Site utility and service systems as far as the installation boundary

1.3 Summary of proposed changes to the regulated facility

A number of changes are proposed to site operations and infrastructure which are part of an ongoing programme of investment and modernisation of the site by Princes. Full technical details are provided in Section 3 – Operating Techniques and BAT Assessment document, however the proposed changes can be summarised as follows.

1.3.1 New Raw Materials Storage Area

The development of a proposed new raw materials storage and handling warehouse (RMW) directly to the east of the existing installation, resulting in an extension being required to the permit boundary in the north eastern corner of the site, as shown on Installation Boundary Plan, reference PLS1-00-01, dated January 2020 (see section 6 of this permit variation application).

The new RMW will accommodate incoming raw ingredients in both chilled/cold and ambient storage in a consolidated area of the site, to replace the existing raw materials storage areas which are currently dispersed across the existing site. The new permit extension area will also include a loading bay with canopy and service yard.

1.3.2 Changes to Food Processing

New Ingredients Processing Facility (IPF)

The permit extension area will also accommodate a new kitchen facility for the storage and preparation of spices and the processing of other raw ingredients such as pulse mixing, frozen mixing, tomato paste decanting, de-boxing. All such ingredients processing currently takes place elsewhere within the existing installation. Sauce make up will take place within the new IPF, using combined mixing and cooking vessels, which will consist of jacketed pans with a slowly rotating paddle for mixing.

New Canned Ready Meal (CRM) Line

It is proposed that the existing pea processing plant (enclosed within a new building) will be relocated within the current installation boundary and the existing root crop equipment decommissioned and replaced with a new Canned Ready Meals (CRM) Line. The CRM Line will be a purpose-built production line fed by solid and liquid ingredients systems that adds vegetables, meat, spices, tomato paste, cream,

milk, oil, water, bulk powders and other minor ingredients from the ingredients processing facility into a hydrostatic steriliser (commercial scale cooker) as required by each recipe. Products vary from canned meat in sauces and chicken pie fillings to vegetarian dishes such as Bombay Potatoes, using pre-prepared vegetables. This new flexible filling line that has the capability to can the various products at a rate of up to 600 cans per minute. It will also include a new Cleaning in Place (CiP) system, consisting of a three-tank recovery type CIP system including pre-rinse, detergent and final rinse tank.

A new hydrostatic steriliser (commercial scale cooker), including additional adiabatic cooling technology to reduce the risk of legionella, is proposed as part of the new CRM line and this new asset will completely replace the existing Mather and Platt (M&P) hydrostat. The new hydrostat includes improvements in control & programming technology, as well as being enclosed within a new structure. The new equipment will have improved environmental performance, providing a high level of water recycling and heat capture and regeneration. The new hydrostat will be located adjacent to the existing M&P hydrostat within the existing permit boundary.

Due to the expiry of the pressure system safety regulation certificate, the existing M&P Hydrostat has been isolated and removed from service 06 February 2020. The M&P hydrostat will be fully decommissioned to ensure that all sources of pollution risk are removed, prior to being dismantled and removed following the completion of the Canning Excellence Programme.

1.3.3 Increased Production Capacity

The replacement of the existing root crop equipment with the new CRM line will result in an increase in the overall production capacity at the installation, in particular for finished products containing animal raw materials (in combined products). The installation does not, and will not, produce any animal raw material only products.

The CRM line will allow the production of a large number of different recipes, for combined and vegetable only canned food products on a flexible basis, according to seasonality and commercial needs. Outputs of finished product will vary according to commercial requirements at the time. Products vary from vegetable only products, to Chunky Steak, for which the finished product weight is approximately 75% animal raw materials.

Following the proposed changes, the maximum daily production capacity of the installation for products containing both animal and vegetable raw materials (combined products) will be 372 tonnes/day. The maximum daily production capacity for products containing only vegetable raw materials will be 538.94 tonnes/day.

The above tonnage figures reflect the maximum daily production capacity of the installation line based on 100% efficiency 24 hours a day. More typical daily production tonnages are reflected in the annual production tonnages of 76,947.15 tonnes/year for vegetable only products and 9,343.61 tonnes/year for combined products. The manufacturing process typically operates continuously from Monday to Friday.

The treatment and processing of animal and vegetable raw materials in combined and separate products will therefore exceed both the Schedule 1 thresholds of 75 and 300 tonnes/day under Section 6.8 A(1)(d)(iii). As such, the current directly associated activity for treating and processing materials intended for the production of food products from animal raw materials in combined products will need to become a listed activity in its own right, replacing the existing listed activity which is limited to the processing vegetable raw materials only, to allow the production of a range of vegetable only and combined products at the installation above the Schedule 1 thresholds under 6.8 (A(1)(d)(iii).

The proportion of animal raw material in percent of weight of finished product production in tonnes per day will vary for reasons of commercial flexibility, however the overall capacity for proportion of animal raw material will be greater than 10% the percent of weight of the finished product production capacity once all the changes have been introduced.

The process is illustrated in the Process Flow Diagram included in Section 6 of this permit variation application. Drawing 800005553, also included in Section 6, shows a detailed illustration of the CRM plant layout.

1.3.4 Replacement of Anaerobic Digestion (AD) plant and safety flare

It is proposed that the existing Upflow Anaerobic Sludge Blanket (UASB) digestion plant, which forms part of the currently permitted effluent Treatment Plant (ETP) will be replaced with a new generation anaerobic digester, including a new auxiliary biogas safety flare, which will be used during plant maintenance or to safeguard the plant. The new Veolia technology (3rd Generation UASB) 280819 VWT plant has been selected based on a BAT assessment and will operate alongside the new asset during commissioning until the old asset is decommissioned once no longer required.

The new AD plant will be located within the existing permit boundary, adjacent to the existing effluent treatment plant on the southern installation boundary, as shown on Site Layout and Emission Points Plan, reference PLS1-00-01, dated 15 January 2020 (see section 6 of this permit variation application).

The new advanced UASB reactor has a design capacity of 4000m³/day, in line with current permitted discharge limits, which will not change. The impact of the proposed changes to food processing activities has been considered and assessed against the currently consented discharge of treated process effluent and has been found to be within all existing limits (see section 2.2.3). Effluent will be pre-treated (course screened) buffered and pre-conditioned in the existing system. A new buffer tank will be installed to transfer flow into the new conditioning tank.

1.3.5 Removal of redundant emission points and boiler equipment

A number of the emission point references currently listed in Table S3.1 of the existing permit and shown on Schedule 7 Site Plan are no longer used or have been relocated within the site, as shown on updated Emission Points Plan reference PLS1-00-01 15 December 2020 (see section 6 of this variation application) as follows:

- Replacement and eventual decommissioning of the existing ETP biogas flare (emission point reference A7) with the new flare mentioned in 1.3.4 above (new emission point A15); and
- Removal of the decommissioned boiler 7 and removal of the associated emission point reference A12 from Table S3.1 of the permit.

Boiler 7 has been dismantled and removed from site, following decommissioning to ensure that all sources of pollution risk had been removed.

1.4 Pre-application discussions

Enhanced pre-application advice was sought from the Environment Agency (EA)'s National Permitting Service (NPS) to confirm the scope of the assessments required to support this permit variation application and written advice was received dated 22 November 2019 (see appendix NTS1). This application addresses all the assessments identified as required during this process.

1.5 Variations required to permit conditions

As a result of the changes described to the regulated facility in Section 1.3, a number of permit conditions will need to be varied as follows:

1.5.1 Schedule 1, Table S1.1 – Permitted activities

Proposed Table S1.1 Activities

Activity Listed in Schedule 1 of the EP Regulations	Description of the specified activity and WFD annex I and II operations	Limits of specified activity and waste types
Section 6.8 A(1)(d)(iii)(aa)	<p>The treatment of animal and vegetable matter and food industries</p> <p>Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (where the weight of the finished product excludes packaging) animal and vegetable raw materials (other than milk only), both in combined and separate products, with a finished product production capacity in tonnes per day: greater than 75 tonnes/day if A is equal to 10 or more.</p> <p>where 'A' is the portion of animal material in percent of weight of the finished product production capacity.</p>	Receipt of raw materials to despatch of finished product, incorporating the activities below
Section 5.4 A(1)(a)(i)	disposal of non-hazardous waste in a facility with a capacity exceeding 50 tonnes per day biological treatment (D8).	Collection, primary treatment and secondary treatment of process effluent from the Installation prior to discharge to controlled waters.
Directly Associated Activity	New Clean in Place (CiP) system	A three-tank recovery type CIP system with pre-rinse, detergent and final rinse tank to serve the CRM line
Directly Associated activity	New Auxiliary flare for the burning of biogas resulting from the biological treatment of process effluent in the new AD plant	Serves the effluent treatment plant Only used for short periods of breakdown or maintenance of the facility when biogas boiler 5 is unavailable.
Directly Associated Activity	Operation of site systems for the supply of utilities and services such as electricity, water, steam, process cooling, compressed air and refrigeration.	Site utility and service systems as far as the installation boundary
Directly Associated Activity	Burning of biogas in an existing boiler 5 and the use of pressure release valves to protect the integrity of the effluent treatment plant	Biogas resulting from the biological treatment of process effluent only

Whilst the use of biogas resulting from the biological treatment of process effluent in the Anaerobic Digestion plant is not a new activity, and is already included in the existing permit as a point source emission to air, it was not previously included in Table S1.1 of the permit and therefore the opportunity to correct this omission should be taken as part of this permit variation.

1.5.2 Schedule 1, Table S1.2 – Operating Techniques

As a result of the changes described in Section 1.3, Table S1.2 of the permit will need to be updated to refer to updated Operating Techniques (see section 3 of this permit variation application).

1.5.3 Schedule 3, Table S3.1 – Point Source Emissions to Air:

As a result of the changes described in Section 1.3, Table S3.1 of the permit will need to be updated to refer to the new biogas safety flare associated with the replacement AD plant (emission point reference A15 and updated Emission Points Plan (see section 6 of this permit variation application). This new auxiliary flare will not be used routinely and would only be used during plant maintenance or to safeguard the plant. As such, monitoring and limits are not typically required.

A number of the emission point references listed in Table S3.1 of the permit and shown on Schedule 7 Site Plan are no longer used or have been relocated within the site as shown on updated Emission Points Plan reference PLS1-00-01 15 December 2020 (see section 6 of this variation application) as follows: This includes removal of the decommissioned boiler 7 and the associated emission point reference A12 from Table S3.1 of the permit.

1.5.4 Schedule 7 – Site Plan

The Site Plan, as referenced in Condition 2.2 - the site, illustrating the installation boundary, will be varied to extend the permit boundary to the east of the existing permitted area as shown on Installation Boundary Plan, reference PLS1-00-01, dated 15 January 2020 (see section 6 of this permit variation application).

2 Assessments

2.1 Environmental Risk Assessment

A site-specific Environmental Risk Assessment (ERA) has been undertaken using the source, pathway receptor methodology to describe and assess the risks arising from the proposed changes to the regulated activities in accordance with EA online guidance document, Risk Assessments for your Environmental Permit¹ and is enclosed in Section 4 of this permit variation application.

An Environmental Risk Assessment (ERA) has been undertaken to assess the risks from the following:

- Odour;
- Noise and vibration;
- Fugitive emissions (including litter and pests); and
- Accidents (including leaks and spills of potentially polluting liquids, vandalism, flooding and fire).

There will be no visible emissions as a result of the proposed changes to the regulated activities. It is not considered that there will be an increased risk of fugitive dust emissions or mud on roads as a result of the proposed changes to the regulated facility.

The key area of risk to the environment and human health associated with the proposed changes to the regulated activities will be fugitive emissions of odour. However, the overall risk for each assessed hazard was deemed to be low or not significant.

Based on the outcome of this environmental risk assessment, it is considered that a noise and vibration management plan and noise impact assessment is not required.

The conditions of the existing permit require operations to be in accordance with an approved odour management plan (OMP). The existing OMP has been updated in accordance with EA Guidance - H4 Odour Management, March 2011, to address the odour risk resulting from the proposed changes and identify the appropriate measures required to control odour pollution from the installation and demonstrate Princes' competence and commitment to this. The updated OMP is enclosed in Section 7 of this permit variation application.

Subject to the implementation of appropriate management measures, the ERA demonstrates that the impacts of the proposals described above will be acceptable for all of the risk areas examined.

Application of the risk management and control strategies will ensure that the facility is operated without detriment to the local environment or to human health.

Operational procedures at the site will monitor and manage amenity and accident risks from the permitted activities and includes provision for the monitoring of odour, noise, and fugitive emissions.

2.2 point source emissions

2.2.1 Land

There are no deposits or point source emissions to land or soil from the installation and this will not change as a result of the proposed changes to the regulated facility as described in Section 1.3.

2.2.2 Air

The only new emission point to air will be a new biogas safety flare associated with the proposed new AD plant. This new emission point, reference A15, will need to be added to Table S3.1 of the varied permit. However, this auxiliary safety flare will not be used routinely and would only be used during plant maintenance or to safeguard the plant. As such emissions to atmosphere from this auxiliary flare are not considered to require assessment.

¹ <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit#how-to-do-a-risk-assessment>

There are no other point source emissions to air associated with the proposed changes to the regulated facility.

2.2.3 Surface Water

Process effluent from all food processing activities is currently treated at the permitted onsite effluent treatment plant (ETP) which consists of a collection pit, screen, balancing tank, primary clarifiers, conditioning tank, anaerobic digester with flare stack, aeration tanks, secondary clarifiers and odour filters, prior to discharge to the River Nene at emission point W4. All process effluent will continue to be collected for treatment in the onsite ETP following the proposed changes to the regulated facility.

An H1 assessment was completed for the installation previously in 2005, to assess the impact of the existing discharge from the effluent treatment plant. The volume and quality of the treated process effluent that will be discharged following the proposed changes to the regulated facility have been reviewed against the previous assessment H1 assessment to consider whether there is any increased risk from hazardous or sanitary pollutants.

This assessment, included in Section 4 of this variation application, concluded that flow to the ETP will remain below the previously assessed 4,000m³/day following the changes to the plant. The concentration of substances going to the treatment plant also remains below the previously assessed values. Whilst it is noted that several new substances have been identified that could potentially enter the effluent waste stream following the proposed changes, these are likely to be in very small quantities, and none of these substances are identified as priority or hazardous substances within the EA H1 assessments. As such they have no specific limits on their concentration in a receiving watercourse. It is therefore concluded that an updated H1 assessment is not required in support of this permit variation application.

Clean surface water runoff from roofs and uncontaminated yard areas within the installation, including the extension area, will continue to be managed separately and will be discharged via the existing emission points W1, W2 and W3 following the changes to the regulated facility. There are currently no volume limits or monitoring requirements related to these surface water discharge points in the permit.

A surface water drainage strategy and assessment of flood risk, dated August 2018, was completed in support of the planning application associated with the expansion of the site and development of the New Raw Materials Handling Area and Kitchen Facility. This report concluded that the development of the proposed new storage and kitchen buildings in the eastern expansion area will not increase the hardstanding area (as it relates to an existing staff car parking area outside the current installation boundary) and therefore surface water flows from this area will continue to route offsite via the existing SuDs drainage system and the surface water discharge points already included in the permit, as mentioned above.

2.2.4 Groundwater

There are no point source emissions to groundwater from the installation and this will not change as a result of the proposed changes to the regulated facility as described in Section 1.3.

2.3 Site Condition Report

The facility will operate with due regard to the conditions of the environmental permit and all relevant environmental legislation to ensure that land and groundwater is protected during the lifetime of the site and that the land is in a satisfactory state when the permit is eventually surrendered.

The possibility of any significant releases to the ground occurring during the lifetime of the permit is therefore limited. All regulated activities will take place on areas of impermeable concrete to eliminate direct potential pathways to soil and groundwater. Minor spillages of potentially polluting materials, if they occur, are dealt with immediately by trained staff using appropriate spill response procedure and spill kits located around the site. The impermeable site surfacing in production areas will locally break

any potential pathway for contaminants that could be emitted from the permitted activities to land or groundwater.

An application site condition report was prepared in support of the original permit application in 2005. An application site condition report has been prepared to address the baseline condition of the additional land to be incorporated within the installation as part of the changes to the regulated facility and is enclosed as Section 5 of this permit variation application. This SCR has been prepared in accordance with Environment Agency (EA) guidance H5 (Site Condition Report – guidance and templates, Version 3, April 2013) and addresses sections 1-3 of the EA template in accordance with EA Guidance notes on part C2 – General – varying a bespoke permit.

3 Key Technical Standards and Control Measures

In addition to the above-mentioned management plans, site operations will also be governed by an Environmental Management System which meets the standards set out in EA guidance, 'Develop a Management System'² and the key technical standards laid out in the following documents:

- How to Comply with your Permit; additional guidance for AD Plant, November 2013;
- Sector Guidance Note 6.10; additional guidance for Food and Drink Sector,
- Sector Guidance Note 5.06 'Recovery and disposal of hazardous and non-hazardous waste', May 2013, as relevant;
- BAT conclusions and BAT Associated Emission Limits (AELs) for Food and Drink Production, published December 2019 .

The key technical standards and control measures arising from the variation risk assessment are as follows:

- All process effluent from production areas will continue to be managed via impermeable pavement and sealed drainage to the ETP, prior to discharge to the River Nene;
- All discharge of treated effluent will be monitored in accordance with the permit requirements to ensure compliance with limits on volume and quality of the discharge;
- Clean surface water runoff from roofs and uncontaminated yard areas, including within the extension area, will continue to be managed separately and will discharged via the existing emission points W1, W2 and W3;
- All storage and handling of raw materials in the installation extension area will be contained within purpose built buildings provided with impermeable pavement and sealed drainage;
- The new biogas safety flare associated with the proposed new AD plant will be used only for short periods of breakdown or maintenance of the facility, in order to safeguard the plant when biogas boiler 5 is unavailable;
- Boundary treatments (3.5m high acoustic grade service yard fence and 2.5 metre high acoustic grade eastern boundary fence) will minimise the impact of noise on nearby sensitive receptors;
- Odour will continue to be controlled via a site-specific management plan; and
- The site manager will ensure that regular inspections are made of the site. If necessary, remedial measures will be arranged as soon as possible.

² <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits>

Appendices

Appendix 1: EA Pre-Application Enhanced Service Letter

Appendix 1 – EA Pre-application Enhanced Service Letter



Ricardo
Energy & Environment

The Gemini Building
Fermi Avenue
Harwell
Didcot
Oxfordshire
OX11 0QR
United Kingdom
t: +44 (0)1235 753000
e: enquiry@ricardo.com

ee.ricardo.com